

INDEX

MONTHS	PAGES	MONTHS	PAGES	MONTHS	PAGES
January	1—40	May	175—220	September	351—394
February	41—84	June	221—266	October	395—442
March	85—128	July	267—306	November	443—482
April	129—174	August	307—350	Extra Issue	483—530
				December	531—570

	PAGE		PAGE		PAGE
ACCELERATION , Influence on Consumption and Journey Time. (J. G. Lavender and C. R. Webb)	363	Book Reviews:		Carburation and Induction Systems , Motor Show Review of	493
Accessories and Components at the Paris Show	474	“Automobile Body Reconditioning” (T. A. Wohlfeil, E. E. Frisk and A. B. Saxman)	69	Carburizing, Gas	149
Aerodynamic Stability	344	“Automotive Electrical Systems” (I. Frazee and E. L. Bedell)	38	Car Heating, Motor Show Review of	518
Air Conditioning, Motor Show Review of Heating Equipment	518	“Bergsteigfähigkeit und Leistung” (W. Flössel)	125	Castings:	
Air-pressure Hydraulic Braking, Clayton Dewandre	234	“CABMA Register 1953”	322	“Niforge” Stress-Free	442
Allard Palm Beach Chassis	177	“CABMA Register 1954”	439	Sealing Porous	128
Alloy, C. 26 Coating	246	“Climbing Ability and Power Output” (W. Flössel)	125	Cast Iron Brake Drums (E. C. Toghill and H. T. Angus)	409
Alloy Steels, Conservation for Truck Axle Parts	199	“High-speed Internal-combustion Engine, The” (H. R. Ricardo)	392	Ceramic Brake Linings	157
Aluminium Alloys, ALAR Data Sheets	37	“Industrial Brazing” (H. R. Brooker and E. V. Beatson)	392	Chassis:	
Aluminium Alloys, Heat-Treatment Equipment	390	“Lighting in Industry”	69	Allard Palm Beach	177
Aluminium Bonding	262	“Materials Handling in Industry”	38	Humber Super Snipe	269
Aluminium Cylinder Bores, Hard Chromium Plating	540	“Metal Industry Handbook and Directory, 1952”	148	Lanchester Leda	3
American Production Developments	359	“Schwingungsdynamik des Schnellen Strassenfahrzeugs” (E. Marguard)	125	Midland Red S.14	553
American Trends (Editorial)	86	“Servicing Guide to British Motor Vehicles” Vol. II (J. N. McHattie)	148	Seddon	43
Arc Welding, Argonaut	238	“Superchargers for Internal Combustion Engines” (B. Eckert)	148	Chassisless Vehicle Design (T. K. Garrett)	103, 153
Ardoloy Tools	385	“Teach Yourself Mechanical Draughtsmanship” (S. M. Hood)	69	Chassis Lubrication, Clayton Dewandre Automatic	245
Argonarc Spot Welding	408	“Technique of Design, The” (P. J. Wallace)	38	Chassis Lubrication (Editorial)	531
Armstrong Siddeley Sapphire Engine	533	“Vibration Dynamics of Fast Road Vehicles” (E. Marguard)	125	Chromium Plate (Editorial)	222
Automatic Chassis Lubrication, Clayton Dewandre	245	Boring, Deep-Hole (H. J. Pearson)	563	Chromium Plating Aluminium Cylinder Bores	540
Automobile Dynamic Loads (T. K. Garrett)	60	Boring Machines:		Clutch Control:	
Automobile Dynamic Loads (B. G. de Bray) (corres.)	330	Boehring, Deep-hole	569	Lockheed Hydraulic	151
Axles:		Carlstedt, Deep-hole	481, 569	Lockheed Manumatic	70
Humber Super Snipe (rear)	276	Hille, Deep-hole	570	Clutches:	
Lanchester (rear)	11	Pégard	481	Lockheed Hydraulic Control Unit	151
Motor Show Review of (rear)	505	Brake Drums:		Motor Show Review of	499
BATTERIES:		Cast Iron (E. C. Toghill and H. T. Angus)	409	Pollard Withdrawal Bearing	562
Exide KHV	82	Laminated, Multi Ring Brake Drum Corp. (pat. spec.)	39	Coach Heating Experiments	147
Matching Starting Equipment	426	Brake Linings, Ceramic	157	Coachwork Design, I.B.C.A.M. Competition	287
Rechargeable Alkaline	378	Brakes:		Coachwork, Motor Show Review of	524
Bearings:		Allard	185	Coating Alloy for High Temperature Use, C.26	246
Big-end, Maybach (pat. spec.)	40	G.E.C. Rheostatic for Trolley Buses	141	Cold Extrusion	187
Engine	302	Humber Super Snipe	281	Cold Roll Forming (Frank Spicer)	391
Plain	463	Lanchester	16	Combustion Chambers, Flow Phenomena in Diesel	147
Pollard Thrust	562	Motor Show, Review of	516	Commercial Vehicle Gearboxes, David Brown (J. T. Riley)	345
Rolling, Behaviour at Very High Running Speeds	162	Multi-pull Hand, E.R.F. (pat. spec.)	39	Common Tolerance System, “A.B.C. Proposals.” (F. W. M. Lee)	560
Benzole, Effect on Fuel Consumption (L. W. Barnard and G. Claxton)	190	Rheostatic, G.E.C. for Trolley Buses	141	Compact Engines	309
Big-end Bearings, Maybach (pat. spec.)	40	Braking:		Compression Ratio, Influence on Fuel Economy (Dr. C. R. Webb and Dr. J. G. Lavender)	142
Bodies:		Air-pressure Hydraulic, Clayton Dewandre	234	Correspondence:	
Plastics, Developments in U.S.A.	112	Exhaust, for Diesel Engine Vehicles (J. L. Koffman)	218	Automobile Dynamic Loads (B. G. de Bray)	330
Plastics, Glass Fibre-polyester	245	Broaching Machine, Rausch Vertical	371	Fuel Injection Nozzles (W. A. Green)	331
Bodywork:		Broach Sharpening Machine, Matrix Bus, Midland Red S.14 Single-decker	553	Corrosion, Automobile Body	385
I.B.C.A.M. Competition	287	CARBIDE Plating, Linde	186	Corrosion of Fuel Injection Nozzles (W. P. Mansfield)	215
Integral Construction, Midland Red Bus	553	Carbo-Nitriding	550	Crankshaft Forging, Chrysler Corporation	386
Light Alloy	200			Crankshaft Production, Ambrose Shardlow & Co., Ltd.	23
Low-Pressure Laminates for (Richard Wood)	541			Cylinder Bores, Hard Chromium Plating on Aluminium	540
Motor Show Review of	524			Cylinder Liner Design	373, 427
Plastics Exhibition, Review of	283			Cylinder Liner Wear and its Causes	373
Body Corrosion	385			DEEP-HOLE Boring (H. J. Pearson)	563
Body Insulation (Editorial)	351			De-rating Gaskets	112
Bonding, Aluminium	262				

AUTOMOBILE ENGINEER

V

	PAGE		PAGE		PAGE
MACHINE Tool Control, Hilger	18	Plastics— <i>Continued</i>		Suspension:	
Machine Tools, <i>see</i>		References	324	Allard (front)	183
Boring Machines		Plating, Carbide	186	Allard (rear)	181
Broaching Machines		Plating Aluminium Cylinder Bores, Hard Chromium	540	Control by Dynamic Absorbers	295
Drilling Machines		Polygram Shell Moulding	65	Humber Super Snipe (front)	279
Gear Hobbing Machines		Powder Metallurgy, Gecalloy Per- manent Magnets	192	Humber Super Snipe (rear)	277
Grinding Machines		Power Output (Editorial)	85, 176	Lanchester (front and rear)	13
Grooving Machines		Press, Müller Automatic-indexing	482	Midland Red, Rubber	558
Lathes		Prices (Editorial)	396	Motor Show Review of Front	507
Milling Machines		Production Figures (Editorial)	268	Motor Show Review of Rear	511
Presses		Production Mechanized (Editorial)	395	Swarf Separation	540
Magnets, Gecalloy Permanent	192	Projector and Scale for Machine Tool Control, Hilger	18	20 m.p.h. (Editorial)	308
Management and Specialization (Editorial)	130	Proof Testing of Components	80	Tappets, Hydraulic Valve (R. Brown-Waring)	126
Manufacturing Tolerances (F. W. M. Lee)	263	Propellor Shafts, Motor Show Review of	505	Testing:	
Manumatic Clutch Control	70	Pumps:		Endurance, Morris Motors, Ltd.	55
Materials Handling (Editorial)	85	Bendix Electric Fuel	393	High-Speed Machinery, Strobos- copic Analysis	19
Mechanized Manufacture, American	359	Simms SPE-6A Injection	158	Proof Testing of Components	80
Mechanized Production (Editorial)	395			Vacuum, for Leaks in Hollow Components	22
Metallurgical Research	258			Vibration, Dawe Stroboscope	306
Metals:		QUALITY Control, Statistical (L. Griffiths)	453	Testing Equipment, Dynamometers (R. H. Warring)	421
Coating Alloy, C.26	246	RACES and Trials (Editorial)	221	Tipplers and Trailers	83
Conservation of Alloys in Steels For Truck Axle Parts	199	Radio Interference	18	Titanium (Editorial)	307
Midland Red S.14 Single-decker Service Bus	553	Rechargeable Alkaline Battery, American	378	Tolerances, A.B.C. System (F. W. M. Lee)	560
Milling Machines:		Refractory Coatings for Metal Com- ponents	323	Tolerances, Manufacturing, Pilot + 2 Limit System (F. W. M. Lee)	263
Rosenfors	481	Rejected Work (Editorial)	176	Torsion Rod Stabilizer, Daimler- Benz (pat. spec.)	40
Thiel Duplex 158 Punch and Die	370	Reliability (Editorial)	395	Trailers and Tipplers	83
Werner Horizontal Heavy Duty	407	Research:		Trolley Bus Developments	239
Mixture Strength, Influence on Fuel Economy (Dr. C. R. Webb and Dr. J. G. Lavender)	142	Equipment	189	Transmission:	
M.I.R.A. Reports	54, 102	Metallurgical	258	Engine-Transmission Relation- ship	84
Moulded Nylon	81	Welding	33	Manumatic Semi-automatic Con- trol	70
Moulding Machine, Autoclino Shell	389	Rheostatic Brakes, G.E.C. for Trolley Buses	141	Torque Converter v. Mechanical Drive	80
Moulding, Polygram Shell	65	Rolling Bearings, Behaviour at Very High Running Speeds	162	<i>see</i> Gearboxes	
Mould Process, Parlanti	442	SAW , Wolf Heavy-duty Portable Electric	371	Tubeless Tyre, Dunlop	286
NASH Developments	76	Scandinavian Service, Vehicle Operating Conditions	174	Turbine Arrangements, Gas (F. R. Bell)	325
New Plant and Tools	370, 407, 477	Sealing Porous Castings, Pulsometer Impregnation Process	128	Turbine Car, Gas (F. R. Bell)	96
Noise, Kinematics of Piston	101	Seddon Chassis	43	Turbo-charged Diesels, Waukesha	95
Nomenclature (Editorial)	267	Shell Moulding Machine, Autoclino Shell Moulding, Polygram	389, 65	Turbo-chargers for Diesel Engines	22
No-Scale Furnaces	420	Shock Absorbers:		Two-stroke Engines (Editorial)	175
Nozzles, Fuel Injection, Causes of Corrosion (W. P. Mansfield)	215	Dynamic	295	Tyre, Dunlop Tubeless	286
Nylon, Moulded	81	Frictional, S.A.G.A. (pat. spec.)	40	VALVE Gear, Overhead	350
OIL Grooving, Trojan Universal Machine	301	Simms SPE-6A Injection Pump	158	Valve Motion, High-Speed	324
Oils, Low Viscosity (Editorial)	41	Small Car Production, Austin	113, 163	Valve Seat Distortion	302
Oven, G.E.C. Laboratory	549	Spectrograph, New Type	388	Valve Tappets, Hydraulic (R. Brown-Waring)	126
Overhead Valve Gear	350	Split-Chassis Construction	266	Valves, Exhaust, Materials	294
PARIS (Editorial)	443	Spot Disc Brakes (Editorial)	307	Valves, C.26 Alloy Protective Coating	246
Paris Show	445, 459, 474	Spraying, Arco Hot	111	Van, G.P.O.	220
Patents	39	Stability, Aerodynamic	344	Vibration Measurements	369
Perkins P3 (TA) Diesel Engine	193	Starting, Matching Batteries	426	Vibration Testing, Dawe Strobos- cope	306
Perkins R6 Diesel Engine	397	Statistical Quality Control (L. Griffiths)	453	WASHER , "Flow-in" Joint	350
Permanent Magnets, Gecalloy	192	Steels, Conservation of Alloys in Steels for Truck Axle Parts	199	Wear Investigations	214
Pilot + 2 Limit System (F. W. M. Lee)	263	Steering:		Wear Phenomena (F. T. Barwell)	77
Piston Design	223	Allard	183	Welding:	
Piston Noise, Kinematics of	101	Humber Super Snipe	281	Argonaut Arc	238
Piston Rings for High Performance Engines	246	Lanchester	16	Argonarc Spot	408
Plain Bearings	463	Motor Show, Review of	507	Developments, Vauxhall Motors, Ltd.	247
Plastics:		Stress-Free Castings, "Niforge"	442	Research	33
Bodies, Developments in U.S.A.	112	Strip Forming Machine	391	Stud	419
Body on Lancia Chassis	245	Stroboscopic Analysis	19	Works, <i>see</i> Factories	
Dies for Steel Pressings	64	Stroboscopic Developments, Dawe Instruments	306		
Exhibition	283	Structural Design (T. K. Garrett)	103, 153		
Low - Pressure Laminates (Richard Wood)	541	Stud Welding	419		

PHOTOGRAPHIC ILLUSTRATIONS OF ENGINE AND CHASSIS DETAILS

	PAGE		PAGE		PAGE
A.C. Ace Front Suspension	509	ENGLISH Electric Cab Control Unit on Sunbeam F4/A Chassis	240	Mercedes-Benz 180 Bonnet Structure	459
A.C. Ace Independent Rear Suspension	511	English Electric Equipment on B.U.T. 2-axle Chassis	243	Mercedes-Benz 180 Front Suspension	507
A.C. Ace Tubular Chassis Frame	514	English Electric Master Controller on B.U.T. 2-axle Chassis	243	Mercedes-Benz 180 Rear Suspension	513
A.J.S. Porcupine Twin-cylinder Motor Cycle Engine	319	FIAT 1100 Engine and Front Suspension	133	Mercedes-Benz 300 Twin Carburettor System	497
Allard Palm Beach Frame	185	Fiat 1100 Rear Axle	134	M.G. Magnette Heater	523
Allard Palm Beach Front Suspension	184	Fiat 1100 Steering Box	134	Midland Red Disc Transmission	559
Allard Palm Beach Rear Suspension	180, 181	Ford 1172cm ³ Side Valve Engine	486	Midland Red Rear Disc Brake	559
Ariel Square Four Motor Cycle Engine	320	Ford Anglia and Prefect Front Suspension	508	Midland Red Rubber Front Suspension	557
Armstrong Siddeley Sapphire Crankcase	536	Ford Anglia Induction System	495	Midland Red Rubber Rear Suspension	559
Armstrong Siddeley Sapphire Engine	533	Ford Consul Twin Carburettor Arrangement	179		
Armstrong Siddeley Sapphire Engine Mounting	91	Ford Cost Cutter Crankcase	356	NASH Ambassador Induction System	498
Armstrong Siddeley Sapphire Induction System	496	Ford Cost Cutter Cylinder Head	356		
Armstrong Siddeley Twin Carburettor Installation	539	Ford Cost Cutter Engine	353	OETIKER Exhaust Brake	475
Austin A30 Electrical Equipment	521	Ford Cost Cutter Engine Mountings	355		
Austin A30 Special Heating Equipment	523	GARDNER Engine Installation in E.R.F. Chassis	92	PANHARD Dyna Basic Structure and Suspension	446
Austin A40 and A30 Gear Units	506	General Electric Cab Control Unit on B.U.T. 3-axle Chassis	242	Panhard Dyna Engine for D.B. Racing Car	452
Austin Healey 100 Gearbox	501	Girling Disc Brake	517	Panhard Dyna 12-cylinder Engine	312, 313
B.M.W. Engine	489	Goliath Two-cylinder Two-stroke Engine	460	Panhard Dyna 54 Engine and Front Suspension Unit	447
B.M.W. 501 Frame	515	Gregoire Suspension Unit	513	Panhard Dyna 745 c.c. Engine	314
B.M.W. 501 Rear Suspension	512	HENSCHEL 100-passenger Single Deck Chassis	213	Pegaso Gearbox	505
B.M.W. 501 Steering Gear	509	Henschel Bus Chassis Type "HS.100N" with Engine	214	Perkins Diesel Cylinder Head, Aero-flow Combustion Chamber and Kigass Starting	48
Borg and Beck Clutch Centre Plate	499	Mounted Transversely	214	Perkins P3 Crankshaft	196
Borg and Beck Triple Plate Racing Clutch	500	Hillman Minx Carburation System	495	Perkins P3 Cylinder Head	198
Borgward Hansa 2400 Automatic Transmission	208	Hobbs Transmission, Gear Train	503	Perkins P3 (TA) Diesel Engine	193
Borgward Hansa Diesel Engine	491	Hotchkiss Gregoire Engine	315	Perkins P4 Diesel Engine	48
Borgward Hansa 2400 Rear Suspension	208	Humber Blue Riband Engine	271, 273	Perkins P6 Diesel Engine	48
Borgward Hansa 1500 Twin Down-draught Carburettors	493	Humber Super Snipe Front Suspension Unit	279, 281	Perkins P6 Diesel Engine, Under-floor Installation in Seddon Passenger Chassis	51
Bosch 130 watt Dynamo and Regulator for Volkswagen	518	JENSEN 541 Front Suspension	508	Perkins R6 Diesel Engine	397
Bosch Starter for Volkswagen	518	Jensen Interceptor Induction System	498	Perkins R6 Timing Gear	400
Bristol 404 Heating Installation	522	Jowett Javelin Engine	316	Porsche 1500 Super Carburettors and Induction System	493
Brown, David, Commercial Vehicle Gearboxes	345, 346, 347	Jowett R4 Electric Motor-driven Fan	485		
B.S.A. Golden Flash 646 c.c. Twin-cylinder Motor Cycle Engine	318	Joymobile Suspension	461, 462	RENAULT Antem Engine	449
Bussing 4-ton Chassis	211			Renault Autobleu Engine	449
Bussing 8-ton Truck Chassis	212	KIGASS Starting Equipment on Perkins Engine	48	Renault 4 CV Engine and Rear Suspension	447
C.E.M.E.C. Engine	448			Renault 4 CV Speed Heater System	475
Citroen 2 CV Carburation System	494	LANCHESTER Fourteen Cylinder Head	7, 8	Rolls-Royce Silver Dawn Induction System	497
Citroen 2 CV Chassis	298	Lanchester Fourteen Engine	5	Rover 60 Engine	488
Citroen 2 CV Engine	309	Lanchester Fourteen Engine and Gearbox Unit Mounting	93	Rover 60 Induction System	496
Citroen 2 CV Rear Suspension	512	Lanchester Fourteen Three-bearing Crankshaft	6	Rover 75 Engine Mounting	93
Clayton Dewandre Concentric Servo Brake	517	Lanchester Leda Frame	16	Royal Enfield Meteor Motor Cycle Engine and Gearbox	311
Clayton Dewandre S 8 Heater	522	Lanchester Leda Front Suspension	13, 14		
Corgi Motor Cycle Engine	318	Lancia Appia Cylinder Block	320	SAURER 5.82-litre four-cylinder Engine with Blower	135
Crosley Engine in Nardi Chassis	451	Lancia Appia Engine	461	Saurer 11.63-litre V8 Engine	135
DAIMLER Conquest Frame	514	Lancia Appia Front Suspension and Steering Arrangement	508	Scintilla Magneto	519
Daimler Conquest Front Suspension	508	Lancia Aurelia Engine	488	Scintilla 1,250-watt Alternator and Rectifier	518
Daimler Conquest Induction System	496	Lancia Clutch, Gearbox and Final Drive Assembly	506	Seddon Mk 5L Goods Chassis	43
Daimler Conquest Rear Suspension	512	Layrub Clutch Centre Plate	499	Seddon Mk 4 and Mk 6 Frame Detail	46
Daimler Underfloor Engine Mounting Arrangement	90	Lincoln X-100 Induction System	497	Seddon Mk 4 and Mk 6 Rear Spring	47
Delaney Gallay Standard A4 Heater	522	Lockheed Disc Brake	516	Simms SPE-6A Injection Pump	158
D.K.W. Three-cylinder Engine	206	Lucas Overdrive Control Units	519	S.L.M. Eight-cylinder Horizontally Opposed Air-cooled Engine for Mowag Truck	138
Dodge Coronet Heating System	522			Standard Eight Carburettor and Induction System	494
Don Flexible Clutch Disc	499	M.A.N. 175 b.h.p. Six-cylinder Direct Injection Diesel Engine with Exhaust Turbo Charger	212	Standard Eight Electrical Equipment	521
Douglas Horizontally Opposed Air-cooled, Twin-cylinder Motor Cycle Engine	318	Mercedes-Benz Diesel Engine	490		
Douglas Vespa Scooter Engine	317	Mercedes-Benz 180 Body-chassis Structure	460		
Dunlop Disc Brake for Jaguar Racing Car	516				

AUTOMOBILE ENGINEER

vii

	PAGE		PAGE		PAGE
Standard Eight Engine	487	Sunbeam S7 Two-cylinder Motor		Volkswagen Engine	312
Standard Eight Front Suspension ..	507	Cycle Engine	318	Volkswagen Front Suspension ..	135
Sudwerke Four-cylinder 145 b.h.p.				Volkswagen Induction System ..	494
Two-stroke Direct Injection		TRIUMPH Speed Twin Motor		Volkswagen Platform Chassis ..	515
Diesel Engine	213	Cycle Engine	316	Volkswagen Rear Suspension	512
Sunbeam F4/A Chassis	240	Triumph Terrier Motor Cycle		Volkswagen Synchromesh Gearbox	135
Sunbeam F4/A Chassis, Rear End	241	Engine	317		
Sunbeam M.F.2B Chassis with				WAUKESHA 185 h.p. Diesel	
Metropolitan-Vickers Electrical		VELOCETTE Water-cooled		Engine with Schwitzer-Cum-	
Equipment	241	Horizontally Opposed Twin-		mins Turbo-charger	95
Sunbeam M.F.2R Chassis with		Cylinder Motor Cycle Engine	317	Waukesha 352 h.p. Diesel Engine	
B.T.H. Electrical Equipment,		Vincent Black Shadow Motor Cycle		with Elliot Turbo-charger	95
Steering Layout	239	Engine	319		